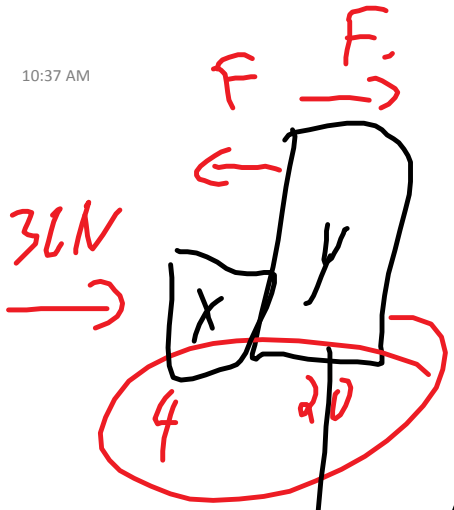
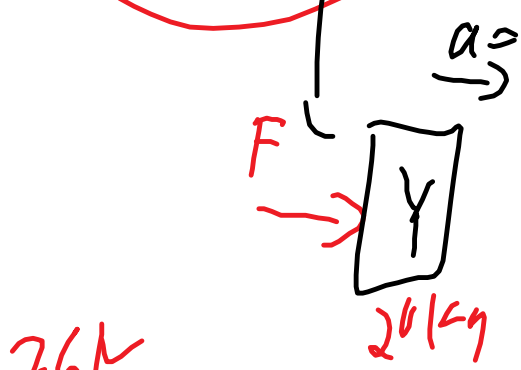


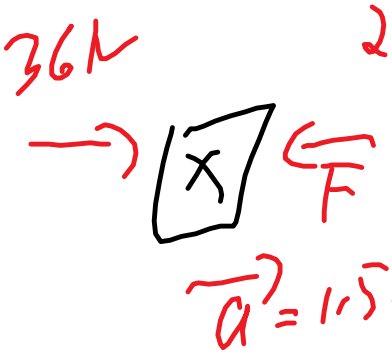
$$a = \frac{F_{net}}{m} = \frac{36N}{24kg}$$

$$a = 1.5 m/s^2$$



$$F = ma = 20(1.5)$$

$$= 30N$$

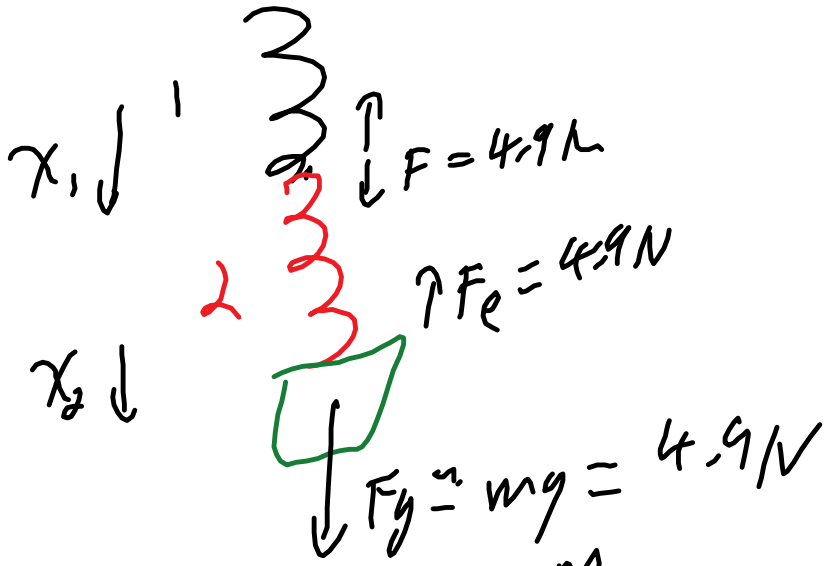


$$m_X a = 36N - F$$

$$4(1.5) = 36N - F$$

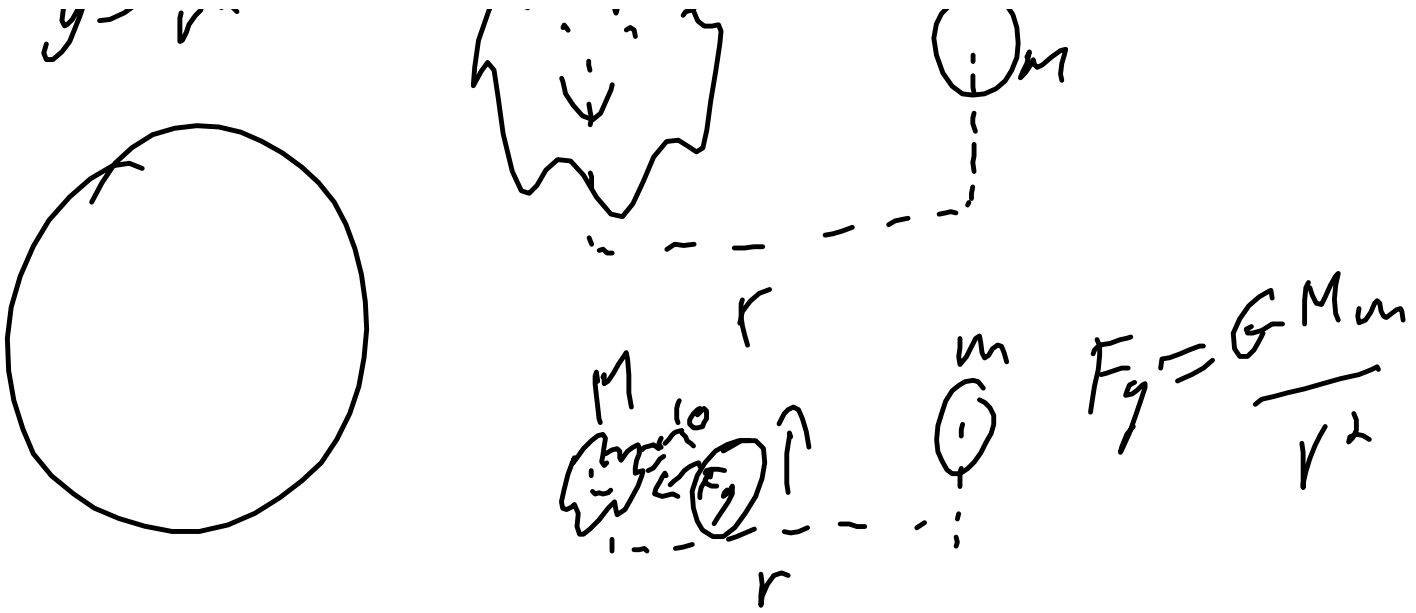
$$F = 36N - 4(1.5)$$

$$\boxed{F = 30N}$$



$$g = \frac{GM}{r^2}$$

$$F_g = \frac{GMm}{r^2}$$


r
M
m
$F_g = \frac{GMm}{r^2}$
r